

FOR OHIO EPA USE

FACILITY ID: \_\_\_\_\_

EU ID: \_\_\_\_\_

PTI

## EMISSIONS ACTIVITY CATEGORY FORM GENERAL PROCESS OPERATION

*This form is to be completed for each process operation when there is no specific emissions activity category (EAC) form applicable. If there is more than one end product for this process, copy and complete this form for each additional product (see instructions). Several State/Federal regulations which may apply to process operations are listed in the instructions. Note that there may be other regulations which apply to this emissions unit which are not included in this list.*

1. Reason this form is being submitted (Check one)

☐ New Permit    ☒ Renewal or Modification of Air Permit Number(s) (e.g. P001): P131

2. Maximum Operating Schedule: 24 hours per day ; 365 days per year

If the schedule is less than 24 hours/day or 365 days/year, what limits the schedule to less than maximum? See instructions for examples. \_\_\_\_\_

3. End product of this process: Alkyl and Alkylether Sulfate

4. Hourly production rates (indicate appropriate units). Please see the instructions for clarification of "Maximum" and "Average" for new versus existing operations:

Hourly	Rate	Units (e.g., widgets)
Average production	400	lb/hr
Maximum production	450	lb/hr

5. Annual production rates (indicate appropriate units) Please see the instructions for clarification of "Maximum" and "Actual" for new versus existing operations:

Annual	Rate	Units (e.g., widgets)
Actual production	1,750	ton/yr
Maximum production	2,000	ton/yr

6. Type of operation (please check one):

- ☒ Continuous  
☒ Batch (please complete items below)

Minimum cycle\* time (minutes): \_\_\_\_\_  
 Minimum time between cycles (minutes): \_\_\_\_\_  
 Maximum number of cycles per daily 24 hour period: \_\_\_\_\_  
 (Note: include cycle time and set up/clean up time.)

\*"Cycle" refers to the time the equipment is in operation.

7. Materials used in process at maximum hourly production rate (add rows/pages as needed):

Material	Physical State at Standard Conditions	Principle Use	Amount**
Copper/chromium oxide powder	solid	precursor support material	386 lb/hr
water and sodium silicate	liquid	binder solution	54 lb/hr
graphite	solid	lubricant	10 lb/hr

\*\* Please indicate the amount **and** rate (e.g., lbs/hr, gallons/hr, lbs/cycle, etc.).

8. Please provide a narrative description of the process below (e.g., coating of metal parts using high VOC content coatings for the manufacture of widgets; emissions controlled by thermal oxidizer...):

Mixing, drying, and milling of copper/chromium oxide powder with binder solutions and solid lubricant to produce a material that can be compressed into tablets. Powder material is pneumatically charged to a mixing vessel through a material receiver. Metal nitrate solutions are added to the mixer and the material is mixed until the powder is thoroughly impregnated with the solution. The wet mix material is discharged from the mixer to bulk bags. The bulk bags are hoisted atop the dryer and the wet mix is fed to the dryer via a feed hopper. After the wet mix is dried, the material is discharged to a solids conveyor that transports the dried material to the milling/blending station to obtain the correct size specification for the tableting process. The milled material is discharged directly to tote bins. Particulate matter emissions from the mixer and dryer are captured and controlled using a reverse-jet fabric filter (F-10-01). Particle emissions from the solids conveyor, mill/blend system, and product discharge are captured and controlled using a reverse-jet fabric filter (DC-10-01) that is discharged to a HEPA after-filter prior to discharge to the atmosphere.